

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing of Claims:**

Claim 1 (currently amended). is ~~An~~ an apparatus for measuring ~~signals~~ the natural gamma radiation in discrete media of drilling cuttings comprising ~~consists of~~:

a) at least one sensor placed proximate an analytical tube; and

b) an auger within the analytical tube for conveying the drilling cuttings through the analytical tube, past the at least one sensor.

Claim 2 (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a natural gamma radiation sensor ~~is the means of obtaining signal that is discriminating the natural gamma radiation of different formations obtained at the surface from unconsolidated material and drilling cuttings.~~

Claim 3 (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a sensor ~~is the apparatus for measuring the absorption properties of gamma radiation in discrete media of drilling cuttings-consist of~~.

Claim 4 (currently amended) The apparatus of claim 3, comprising two sensors, first a ~~First is the gamma ray (15) 45 and second a beta ray (16) 46-receivers~~ receiver attached together on one side of the analytical tube.

Claim 5 (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a sensor ~~is the apparatus for measuring the Induction Resistivity properties of formation in discrete media of drilling cuttings.~~

Claim 6 (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a sensor ~~is the apparatus~~ for measuring the Sonic velocities and penetration properties of formation in discrete media of drilling cuttings.

Claim 7 (currently amended) A method ~~is the parameter~~ to correlate the quantity of sample passing ~~at this time~~ through an the auger, comprising correlating the ~~The~~ relative deflections depending on quantity of sample passing through the auger ~~will be explained~~.

Claim 8 (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a ~~is the apparatus for~~ Fluorescence brightness measurement by injection of dissolvent (55) 55.

Claim 9 (currently amended) The method of claim 7, further comprising ~~is the process of~~ ~~constantly~~ injecting small dose of dissolvent in to the cuttings flow.

Claim 10 (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a fluorescent brightness measurement sensor (54) ~~is sensor 54~~, which measures the amplitude and frequency of light emission produced.